Access DB# 33411

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Carol Chaney Examiner # : 72248 Date: 1-18-01
Art Unit: 1745 Phone Number 305 3777 Serial Number: 09/338115
Mail Box and Bldg/Room Location: CP3 4A01 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Battery Strength Indicator

Inventors (please provide full names): James R. Burroughs & Alan N. O'Kain

Earliest Priority Filing Date: 5-14-91

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Litigation search for US SN 09/338115 requested.

5,015,544

— NO REPORTED LITIGATION —

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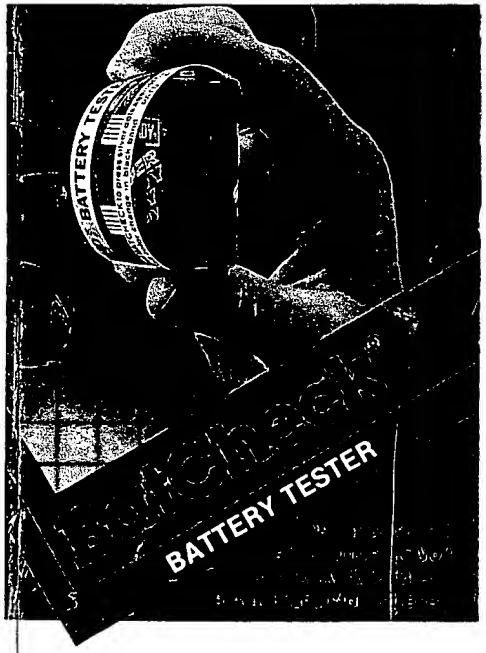
STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: [illegible]	NA Sequence (#)		STN	
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location: STIC	Structure (#)		Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed: 1-18-01	Litigation	✓	Lexis/Nexis	
Searcher Prep & Review Time: 7	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time: 8	Other		Other (specify)	

PTO-1590 (1-2000)

The **BatCheck**® is a solid-state device which uses a revolutionary new concept to test batteries: when the contacts of the **BatCheck**® are pressed against the battery terminals an electrical current flows and heats the conductive pathway, causing a color change in the temperature-sensitive liquid crystals printed on the film. As the color-change band moves out from the center of the scale, the condition of the battery can be seen after just a few seconds. Since the **BatCheck**® was designed to test all batteries under load conditions similar to actual use, it gives you results you can count on every time!

Features:

- Easy to Read • Easy to Use
- Reliable Solid-State operation
- Ultra-thin construction easy to store & ship; carries in shirt-pocket
- Dependable liquid crystal technology — no moving parts or wires
- Tests all common sizes: 1.5V (AAA, AA, A, N, C, D) and 9V transistor
- Tests all common types: Carbon-Zinc, Alkaline, and Nickel-Cadmium
- Tests batteries under normal load for accurate results every time
- Won't wear out — offers years of service; pays for itself in 1st use



MICROPOROUS FILM AND HOLLOW FIBERS

Celgard.

13800 S.Lakes Dr.
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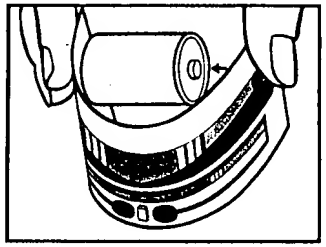
Charlotte, NC 28224
704/588-5310
FAX 704/588-5319
TELEX 575 141

instructions

1.5 Volt

1. Look at the **BatCheck**® and find the 1.5 Volt scale.
2. Turn the **BatCheck**® over and locate the conductive silver dots on the underside at opposite ends of the 1.5 V scale.
3. Press one dot against one end of the battery, and then hold it there (polarity doesn't matter, but it is often easier to start with the negative (-) terminal since it is flatter and easier to press against).
4. Bend the **BatCheck**® around until the other dot makes contact with the opposite end of the battery and hold it there.



5. Maintain good electrical contact for several seconds and then take the reading as shown.

PATD. PAT. PEND. R.P.D.

6. Observe where the tip of the color change band stops:
   Green zone = good battery
   Red stripes = weak battery
   Red zone = dead battery

9 Volt Transistor

The method is the same as in steps 1-5 above except that the 9 Volt scale is used and it is not necessary to bend the **BatCheck**® (the conductive silver dots for the 9 Volt scale line up with the battery terminals).

- Since **BatCheck**® is a thermally activated device, its performance is affected by temperature extremes. It will operate in normal ambient conditions, even on relatively hot days, but its accuracy will be seriously affected by direct heating or cooling. Therefore **do not:**
  1. Test in direct sunlight
  2. Test in windy conditions
- For long life, avoid sharp creases in film and prolonged exposure to sunlight. Store in a cool, dry environment.
- Your **BatCheck**® can be used over and over. You can carry it in a wallet, keep it in a toolbox, put it in a purse, or store it in a drawer.

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*** ACTIVITY REPORT ***
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TX/RX NO.	4176
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PAGES	14
RESULT	OK

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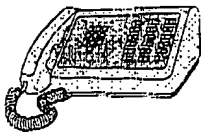

FACSIMILE COVER LETTER

Our Ref.:	STR30100	Your Ref.:	09/338,115
Fax No. Called:	703-305-5885		
Please Deliver To:	Examiner Chaney		
From:	Peter W. Peterson		
Date:	May 30, 2000	Time:	3:35

We are transmitting 14 pages (including this cover sheet)

MESSAGE:

DRAFT FOR DISCUSSION PURPOSES ONLY - DO NOT ENTER

DOCKET: STR30100 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTOR:	Burroughs et al.	EXAMINER:	C. Chaney
SERIAL NO.:	09/338,115	ART UNIT:	1745
FILING DATE:	June 23, 1999	DATE:	June _____, 2000
FOR:	Battery Strength Indicator		

DRAFT AMENDMENT

Assistant Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

Responsive to the Office Action mailed April 10, 2000, please amend the application as follows:

In the Claims

Cancel claims 12 and 51-62.

Add new claims 63-71 as follows:

[NOTE: COMBINES CLAIMS 12 + 53]

63. A battery having a battery strength indicator comprising:

a nonrechargeable dry cell battery having a first terminal and a second terminal;

a battery strength indicator formed in a layer attached to a side of said battery which undergoes a visible change when subject to a predetermined voltage output of said battery, said battery strength indicator having:

A) a dielectric layer;

B) a conductive layer above or below the dielectric layer, one end of said conductive layer adapted to be electrically connected to the first battery terminal;

C) a temperature sensitive color indicator material in thermal contact with the conductive layer, characterized in that:

the conductive layer has

i) sufficient heat generating capacity to effect a change in the temperature sensitive color indicator material and

ii) means to transfer sufficient heat generated by the conductive layer to the temperature sensitive color indicator material to change the color thereof and indicate voltage when the voltage indicator is in contact with a battery housing; and

a battery switch comprising a resilient, nonconductive, deformable layer on a side of said battery, a switch chamber disposed beneath said resilient layer, and a conductor extending from said switch chamber and connected to the other end of the indicator, a portion of the conductor within said switch chamber comprising a switch contact, said battery switch being biased in an electrically open position,

whereby upon pressing of the resilient layer over said switch chamber, the switch contact will be placed in electrical contact with the second battery terminal, thereby placing the indicator in electrical contact across the terminals of the battery to indicate to the user the strength of the battery.

[NOTE: COMBINES CLAIMS 12 + 55]

64. A battery having a battery strength indicator comprising:

a nonrechargeable dry cell battery having a first terminal and a second terminal;

a battery strength indicator formed in a layer attached to a side of said battery comprising a liquid crystal composition that changes phases and undergoes a visible change when subject to a predetermined voltage output of said battery, one end of said indicator adapted to be electrically connected to the first battery terminal; and

a battery switch comprising a resilient, nonconductive, deformable layer on a side of said battery, a switch chamber disposed beneath said resilient layer, and a conductor extending from said switch chamber and connected to the other end of the indicator, a portion of the conductor within said switch chamber comprising a switch contact, said battery switch being biased in an electrically open position,

whereby upon pressing of the resilient layer over said switch chamber, the switch contact will be placed in electrical contact with the second battery terminal, thereby placing the indicator in electrical contact across the terminals of the battery to indicate to the user the strength of the battery.

[NOTE: COMBINES CLAIMS 12 + 56]

65. A battery having a battery strength indicator comprising:

a nonrechargeable dry cell battery having a first terminal and a second terminal;

a battery strength indicator formed in a layer attached to a side of said battery comprising a conductive layer which has a reduced cross-sectional area in

contact with a heat sensitive color indicating material adapted to undergo a visible color change when the temperature of the reduced cross-sectional area of the conductive layer rises to a pre-determined temperature in response to a predetermined voltage output of said battery, one end of said indicator adapted to be electrically connected to the first battery terminal; and

a battery switch comprising a resilient, nonconductive, deformable layer on a side of said battery, a switch chamber disposed beneath said resilient layer, and a conductor extending from said switch chamber and connected to the other end of the indicator, a portion of the conductor within said switch chamber comprising a switch contact, said battery switch being biased in an electrically open position,

whereby upon pressing of the resilient layer over said switch chamber, the switch contact will be placed in electrical contact with the second battery terminal, thereby placing the indicator in electrical contact across the terminals of the battery to indicate to the user the strength of the battery.

[NOTE: COMBINES CLAIMS 12 + 57]

66. A battery having a battery strength indicator comprising:

a nonrechargeable dry cell battery having a first terminal and a second terminal;

a battery strength indicator formed in a layer attached to a side of said battery comprising a light emitting diode that undergoes a visible change when subject to a predetermined voltage output of said battery, one end of said indicator adapted to be electrically connected to the first battery terminal; and

a battery switch comprising a resilient, nonconductive, deformable layer on a side of said battery, a switch chamber disposed beneath said resilient layer, and a conductor extending from said switch chamber and connected to the other end of the indicator, a portion of the conductor within said switch chamber comprising a switch contact, said battery switch being biased in an electrically open position,

whereby upon pressing of the resilient layer over said switch chamber, the switch contact will be placed in electrical contact with the second battery terminal, thereby placing the indicator in electrical contact across the terminals of the battery to indicate to the user the strength of the battery.

[NOTE: COMBINES CLAIMS 51 + 58]

67. A battery having a battery strength indicator comprising:

a rechargeable dry cell battery having a first terminal and a second terminal;

a battery strength indicator formed in a layer attached to a side of said battery which undergoes a visible change when subject to a predetermined voltage output of said battery, said battery strength indicator having:

A) a dielectric layer;

B) a conductive layer above or below the dielectric layer, one end of said conductive layer adapted to be electrically connected to the first battery terminal;

C) a temperature sensitive color indicator material in thermal contact with the conductive layer, characterized in that:

the conductive layer has

i) sufficient heat generating capacity to effect a change in the temperature sensitive color indicator material and

ii) means to transfer sufficient heat generated by the conductive layer to the temperature sensitive color indicator material to change the color thereof and indicate voltage when the voltage indicator is in contact with a battery housing; and

a battery switch comprising a resilient, nonconductive, deformable layer on a side of said battery, a switch chamber disposed beneath said resilient layer, and a conductor extending from said switch chamber and connected to the other end of the indicator, a portion of the conductor within said switch chamber comprising a switch contact, said battery switch being biased in an electrically open position,

whereby upon pressing of the resilient layer over said switch chamber, the switch contact will be placed in electrical contact with the second battery terminal, thereby placing the indicator in electrical contact across the terminals of the battery to indicate to the user the strength of the battery.

[NOTE: COMBINES CLAIMS 51 + 60]

68. A battery having a battery strength indicator comprising:

a rechargeable dry cell battery having a first terminal and a second terminal;

a battery strength indicator formed in a layer attached to a side of said battery comprising a liquid crystal composition that changes phases and undergoes a visible change when subject to a predetermined voltage output of said battery,

one end of said indicator adapted to be electrically connected to the first battery terminal; and

a battery switch comprising a resilient, nonconductive, deformable layer on a side of said battery, a switch chamber disposed beneath said resilient layer, and a conductor extending from said switch chamber and connected to the other end of the indicator, a portion of the conductor within said switch chamber comprising a switch contact, said battery switch being biased in an electrically open position,

whereby upon pressing of the resilient layer over said switch chamber, the switch contact will be placed in electrical contact with the second battery terminal, thereby placing the indicator in electrical contact across the terminals of the battery to indicate to the user the strength of the battery.

[NOTE: COMBINES CLAIMS 51 + 61]

69. A battery having a battery strength indicator comprising:

a rechargeable dry cell battery having a first terminal and a second terminal;

a battery strength indicator formed in a layer attached to a side of said battery comprising a conductive layer which has a reduced cross-sectional area in contact with a heat sensitive color indicating material adapted to undergo a visible color change when the temperature of the reduced cross-sectional area of the conductive layer rises to a pre-determined temperature in response to a predetermined voltage output of said battery, one end of said indicator adapted to be electrically connected to the first battery terminal; and

a battery switch comprising a resilient, nonconductive, deformable layer on a side of said battery, a switch chamber disposed beneath said resilient layer, and a conductor extending from said switch chamber and connected to the other end of the indicator, a portion of the conductor within said switch chamber comprising a switch contact, said battery switch being biased in an electrically open position,

whereby upon pressing of the resilient layer over said switch chamber, the switch contact will be placed in electrical contact with the second battery terminal, thereby placing the indicator in electrical contact across the terminals of the battery to indicate to the user the strength of the battery.

[NOTE: COMBINES CLAIMS 51 + 62]

70. A battery having a battery strength indicator comprising:

a rechargeable dry cell battery having a first terminal and a second terminal;

a battery strength indicator formed in a layer attached to a side of said battery comprising a light emitting diode that undergoes a visible change when subject to a predetermined voltage output of said battery, one end of said indicator adapted to be electrically connected to the first battery terminal; and

a battery switch comprising a resilient, nonconductive, deformable layer on a side of said battery, a switch chamber disposed beneath said resilient layer, and a conductor extending from said switch chamber and connected to the other end of the indicator, a portion of the conductor within said switch chamber comprising a switch contact, said battery switch being biased in an electrically open position,

whereby upon pressing of the resilient layer over said switch chamber, the switch contact will be placed in electrical contact with the second battery terminal, thereby placing the indicator in electrical contact across the terminals of the battery to indicate to the user the strength of the battery.

[NEW]

71. A battery having a battery strength indicator comprising:

a dry cell battery having a first terminal and a second terminal;

a battery strength indicator formed in a layer attached to a side of said battery which undergoes a visible change when subject to a predetermined voltage output of said battery, the battery strength indicator comprising a conductive layer and a heat sensitive color indicating material adapted to undergo a color change when the temperature of the conductive layer rises to a pre-determined temperature corresponding to the pre-determined voltage output, one end of said indicator adapted to be electrically connected to the first battery terminal; and

a battery switch comprising a resilient, nonconductive, deformable layer on a side of said battery, a switch chamber disposed beneath said resilient layer, and a conductor extending from said switch chamber and electrically connected to the other end of the indicator, a portion of the conductor within said switch chamber comprising a switch contact, said battery switch being biased in an electrically open position,

whereby upon pressing of the resilient layer over said switch chamber, the switch contact will be placed in electrical contact with the second battery terminal, thereby

See Fig 10 col 4 lines 21-36 col 8 lines 36-col 9 line 11

limitation is absent for interference count

document from Bond indicates claims are not correspondent to count

placing the indicator in electrical contact across the terminals of the battery to indicate to the user the strength of the battery.

REMARKS

Applicants appreciate the thoroughness of the Examiner's office action and have endeavored to amend the application in order to further the case for allowance. Reconsideration is respectfully requested in light of the amendments above and the remarks below.

Reissue Application Issues

With respect to surrender of the original letters patent, applicants have filed an offer to surrender on June 23, 1999. A request for abstract of title was concurrently filed therewith.

A supplemental reissue declaration from the inventors is enclosed. ***[NOT ENCLOSED NOW - WILL BE ATTACHED WHEN AMENDMENT FILED]***

With respect to a stay in the present case, applicants represent that there are no significant overlapping issues between the instant application and the litigation and formally request that the application be examined. The claims of the instant application were found by Examiner Wieder in the parent reissue case as not corresponding to the count when Interference No. 103,036 was declared. This was also confirmed by the Board of Patent Appeals and Interferences. Furthermore, there is evidence of actual and on-going infringement as stated in the Petition to Make Special and accompanying declaration by the undersigned filed concurrently with the instant application on June 23, 1999. Finally, the decision dated December 9, 1999 on applicants' Petition Under 37 CFR § 1.177 granted applicants' request for non-simultaneous issuance of several

reissue applications. Accordingly, applicants believe that they are entitled to have the application examined at this time.

With respect to the objections under 37 CFR §1.172(a) for lack of written consent of all assignees owning an undivided interest in the patent, applicants submit that a request for abstract of title was filed concurrently with the instant application signed by Alan N. O'Kain as member of Strategic Electronics, LLC which shows the assent by the assignee to the filing of the instant reissue application. In further compliance with 37 CFR §§1.172 and 3.73, the assignment of the parent U.S. Patent No. 5,015,544 is located on reel ____, frame ____. An appropriate paper satisfying the requirement of 37 CFR §3.73 has been enclosed.

Section 112 issues

Independent claims 12 and 51 (along with claims 53-62 dependent thereon) were rejected under 35 USC §112, second paragraph, as being indefinite, i.e., for using the term "quickly." Claims 12 and 51 have been canceled and, to the extent that the subject matter of claims 12 and 51 have been incorporated in the new claims added herein, the term "quickly" has not been employed. Accordingly, 35 USC §112, second paragraph, is believed satisfied.

Claims allowable over the prior art

Claims 53, 55-58 and 60-62 were not indicated as being rejected over prior art. Accordingly, new claims 63-70 place in independent form the subject matter of claims 12 and 51, with minor changes for clarity, with the subject matter of dependent claims 53, 55-58, and 60-62. No new matter has been added. The correspondence of the new claims is as follows:

New claim	Old claims
63	12 and 53
64	12 and 55
65	12 and 56
66	12 and 57
67	51 and 58
68	51 and 58
69	51 and 60
70	51 and 61

Section 102 Issues

Claims 12, 51, 54 and 59 were rejected under 35 USC §102 as being anticipated by Sterling (U.S. Patent No. 1,497,388). Claim 52 was rejected under 35 USC §102 as being anticipated by Marko (U.S. Patent No. 964,994).

Applicants have canceled claims 12, 51, 54 and 59 without prejudice to re-file those claims in a further continuation reissue application.

Applicants have added new claim 71 which incorporates much of the subject matter of claims 12 and 51 and adds the limitations that the battery strength indicator comprises a conductive layer and a heat sensitive color indicating material adapted to undergo a color change when the temperature of the conductive layer rises to a pre-determined temperature corresponding to the pre-determined voltage output across the battery terminals when the switch chamber resilient layer is pressed to place the indicator in electrical contact across the terminals of the battery. This added subject matter is similar to that of claims 53 and 56, which had not been previously rejected over the prior art. The invention defined by new claim 71 is not anticipated by or obvious from either Sterling or Marko since neither one discloses or suggests this type of battery strength indicator in combination with the battery switch on the side ofa dry cell battery.

In accordance with the amendments and remarks above, applicants respectfully submit that the instant application has been placed in condition for allowance. Reconsideration of the rejection and allowance and prompt issuance are respectfully requested.

Respectfully submitted,

Peter W. Peterson
Reg. No. 31,867

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date indicated below as first class mail in an envelope addressed to the Assistant Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Name: _____ Date: _____ Signature: _____

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